

## CLIMATOLOGICAL DATA FOR MAY, 1911.

## DISTRICT NO. 5, UPPER MISSISSIPPI VALLEY.

GEO. M. CHAPPEL, District Editor.

## GENERAL SUMMARY.

With the exception of the first 4 or 5 days, May, 1911, was a very pleasant month, favorable for all outdoor occupations and the rapid growth of vegetation. A cool wave spread over the upper Mississippi Valley on the 1st and continued until the 5th. It was attended by snow flurries over a part of the northern half of the district on the 1st and by freezing temperatures and killing frost on the morning of the 2d over all sections, except the extreme southern portion of Illinois; but vegetation was not far enough advanced generally to be injured. After the 4th, in the northwestern, and the 5th, in the eastern sections, the weather was unusually warm, the temperature being above the normal, except on 2 or 3 days between the 5th and 31st. It was exceptionally warm during the last decade, when maximum temperatures above 95° were recorded on 1 or more days in all sections.

The conditions during the second and third decades of the month were probably the most favorable that were ever experienced in this section of the country for planting, rapid germination of seed, and the growth of vegetation. The only thing lacking, from the viewpoint of the agriculturist, to have made the conditions perfect, was a sufficient amount of rainfall over the southern and middle sections of the district. The deficiency of moisture was not, however, enough to cause any material damage until near the end of the month, and then only in the southern third of the district. On the other hand, there was an excess of rainfall for the month in the extreme northern sections, where the drought was the most severe in the summer of 1910; and at the close of the month vegetation and soil conditions were never better in North Dakota, at that season of the year.

## TEMPERATURE.

There was an excess of temperature in all of the States of the upper Mississippi Valley, and in many localities the maximum temperature was higher than was ever before recorded during the month of May. The monthly means for the several States are as follows: North Dakota, 55.1°, Minnesota, 60.2°; Wisconsin, 61.4°; Iowa, 65.3°; Missouri, 68.6°; Indiana, 65.6°; and Illinois, 67.8°, and the average departures ranged from +3.2° in North Dakota to +6° in Indiana. The first 4 or 5 days were cold in all parts of the district, and freezing temperatures and killing frosts were general on the morning of the 2d, and light frost on the 3d and 4th, well toward the southern limits of Illinois. After the 5th, the temperature rose rapidly, and, except on 2 or 3 days, was above the normal over the middle and southern sections, during the remainder of the month; freezing temperatures, however,

occurred on the 11th and 12th in North Dakota and northern Minnesota, and killing frost occurred in Wisconsin as late as the 13th. Most of the time during the last decade, the temperature was excessively high, maximum temperatures above 95° being recorded on 1 or more days in all sections, except North Dakota, where the maximum for the month was recorded on the 14th.

The monthly mean temperature for the district, as shown by the records of 293 stations, is 63°, which is 5.4° above the normal. The highest monthly mean was 72.4° at Cairo, Ill., and the lowest, 50.6°, at Willow City, N. Dak. The highest temperature was 101° at Carbondale, Ill., on the 28th, and the lowest, 8°, at McKinney, N. Dak., on the 2d.

## PRECIPITATION.

The precipitation was below the normal in all of the States in the district, except North Dakota and Wisconsin, the excess being quite general in North Dakota, but was made up in Wisconsin by heavy rains over a strip extending from the northeastern to the southwestern corner of the State, the southeastern and northwestern counties reporting a deficiency for the month. In Minnesota there was less than the normal rainfall over the southwestern and west-central counties, but there was an excess over the southeastern, east-central, and northern counties. In Iowa there was quite a large area in the northeastern quarter of the State, where the rainfall was considerably above the normal; but from Dubuque County southward to Missouri and over the Des Moines River Valley there was a decided deficiency, and the average for the section was below the normal. In Missouri and Indiana it was below the average at all stations, and there were only two stations in Illinois that reported an excess. The average amounts, with the departures from the normal, for the various States, are as follows: North Dakota, 3.52 inches, +1.28 inches; Minnesota, 3.46 inches, -0.20 inch; Wisconsin, 4.80 inches, +0.85 inch; Iowa, 4.05 inches, -0.44 inch; Missouri, 1.73 inches, -3.13 inches; Indiana, 2.75 inches, -1.44 inches; Illinois, 2.13 inches, -1.99 inches. Over the southern, middle, and eastern sections there was more or less precipitation on the 1st, part of which was in the form of snow over the northern portion of the central sections; but there was little or no rain in North Dakota and northern Minnesota until after the 7th, when showers were frequent and well distributed, and the amounts of rainfall exceeded the average for those sections. In other States in the district showers were

generally light and scattered between the 7th and 15th; but from the 19th to 23d, and from the 27th to 31st, the showers were quite general and the rainfall copious. In fact, most of the rain fell during the latter half of the month, and at the close of the month all vegetation was in fine condition, except in southern Illinois, where droughty conditions prevailed.

The average precipitation for the district, as shown by the records of 309 stations, is 3.56 inches, which is 0.52 inch below the normal. The greatest amount, 8.73 inches, occurred at Fayette, Iowa, and the least, 0.22 inch, at Cairo, Ill. The greatest amount in 24 consecutive hours, 4.20 inches, occurred at New London, Minn., on the 15th.

The average depth of unmelted snowfall was 0.3 inch. The greatest depth was 7 inches, at Hannah, N. Dak., and at many stations in all sections none occurred. Measurable precipitation occurred on an average of 9 days.

#### SUNSHINE AND CLOUDINESS.

The average number of clear days was 16; partly cloudy, 9; cloudy, 6. The duration of sunshine was considerably above the normal.

#### WIND.

Southwest winds prevailed. The highest velocity reported was 48 miles per hour, from the northeast, at Devils Lake, N. Dak., on the 26th.

#### SEVERE LOCAL STORMS.

Mr. Clarence J. Root, section director at Springfield Ill., reports that damaging local storms occurred in Tazewell and Woodford Counties, Ill., on the 28th, and that reports of deaths and damage by lightning were received at various times from different places in that State.

Mr. M. L. Fuller, local forecaster, Peoria, Ill., has kindly furnished the following report on the storm of the 28th at Pekin, Tazewell County, Ill.:

About 2 p. m. of May 28, unusually severe thunderstorms visited portions of Tazewell County, Ill., with heavy local downpours of rain, causing floods and washouts in places, and with hail or wind reported from some points. At Pekin, Ill., damage was done by wind to an amount variously estimated at \$25,000 to \$50,000. Many trees in the city, some of them a foot to 18 inches in diameter, were blown down, one street being rendered temporarily impassable. A few awnings, plate-glass windows, and roofs of buildings were wrecked. Along the river a pumping station built of concrete blocks was demolished, a railroad depot unroofed, and two or three ice houses badly broken up. Near one of the ice houses, two boys, Clyde Sakers, aged 17 years, and Frank Woodley, aged 13, were killed by flying wreckage. A total of seven other persons in the city were more or less injured. The damage wrought was chiefly to larger or exposed trees and exposed portions of buildings. The greatest destruction was along the river bank which rises somewhat abruptly 15 feet or so above a level mile or two of bottom lands. All wreckage appears to have been scattered in the same general direction. Although reported in the press as a "cyclone," the storm appears to have been a straight blow accompanied by the usual thunder-squall roll of agitated wind cloud.

The following is an extract from an account of a severe local storm at Cedar Rapids, Iowa, on May 19, 1911, as published in the Republican of that city, on May 20:

The most destructive storm in many years struck west Cedar Rapids last evening at about 6.45 o'clock, and the damage done to property will run up into the thousands of dollars, not counting the destruction of shade and fruit trees. The storm track was about two blocks wide, and extended diagonally toward the river. There was plenty of warning, as the black-looking clouds plainly heralded the storm's approach. The gusts of wind became stronger, and, when in a sudden fury, the gale swept with resistless force, trees were snapped and twisted off as easily

as if they were made of glass. Wires were tangled and broken, putting the telephone and light service completely out of commission. The whole northwest portion of the west side was cut off from telephonic communication and thrown into darkness by the wrecking of a pole carrying the supply and feed wires up Fourth Street and throwing them across the trolley wire of the street railway company, on G Avenue. Great damage was done to the buildings at the Alamo. The skating rink and several other buildings were blown down, and others were badly damaged. Much of the fence surrounding the park was also blown down. In the vicinity of Kenwood, and between there and Twentieth Street, the storm seemed to concentrate its fury, and the damage done to houses and property will amount to several hundred dollars. Barns were unroofed, and doors and trees were scattered all along the boulevard. The building of the King-Crown Plaster Co. was badly wrecked. The lower two stories were constructed of concrete blocks, and the upper stories of wooden framework. The whole wooden top was caved in on the south and west sides and rent asunder and the concrete blocks were crushed. Large pieces of the building were carried more than a block, and timbers and boards went as far as the river. Several courses of the concrete blocks were caved in by the force of the wind, and the whole building was rendered a mass of ruins. Much minor damage was done, but no lives were lost, although several people were injured, and one seriously.

#### RIVERS.

Rivers are still below the normal stage, but a rise occurred during the latter half of the month.

Owing to good rains in the headwaters, both the Mississippi and Wisconsin Rivers rose steadily from about the middle of the month to near the close. The Wisconsin at Wausau, Wis., rose from 3.9 feet, on the 12th, to 6.7 feet on the 24th, and at Portage, Wis., from 3.6 feet on the 11th to 7.9 feet on the 28th. The Mississippi at La Crosse, Wis., rose from 2.1 feet on the 19th to 5 feet on the 27th; at Prairie du Chien, Wis., from 2.5 feet on the 15th to 6.4 feet on the 31st, and at Dubuque, Iowa, from 3 feet on the 20th to 6.7 feet on the 31st. After a year of very low water this rise was of decided benefit to most river interests, but higher water is needed for navigation.—J. H. Spencer, local forecaster.

Mr. J. M. Sherier, local forecaster, in charge of the Davenport, Iowa, river district, reports as follows:

Steadily rising stages in this river district during the last decade of May resulted from copious rains over the extreme northern portion of the watershed about the middle of the month. At the end of the month the stage of the Mississippi River at Muscatine, Iowa, was still lower than the corresponding time in 1910, but gauge readings between Dubuque and Davenport, Iowa, were generally higher than those of a year ago. The reading of 4.6 feet at Davenport on the 31st was exactly the same as recorded on that date last year.

The following item relative to steamboat traffic, on the Mississippi River in the vicinity of Burlington, Iowa, appeared in the Times-Republican, Marshalltown, Iowa, on May 8:

With the river showing an increased stage of water the steamboat men are feeling more encouraged, and last week was marked by a general awakening in traffic circles. The *St. Paul* and *Quincy*, huge liners of the Streckfus Co., were taken to St. Louis for alterations, and Capt. Blair went South en route to New Orleans with a large party of excursionists on the *Morning Star*. The *Helen Blair* has resumed her place in the Burlington-Davenport trade, and the *Keokuk* has started daily service south of Keokuk. The *Black Hawk* is coming every day from the south, and later on the *Columbia* will probably be put in the trade establishing a daily service from Davenport to this city.

#### ENGINEERING NOTES.

Muck work is being done on the streams in Iowa, with the view of conserving and developing the water power. Plans are already drawn and work will begin as soon as possible on a 4,000 to 6,000 horsepower hydroelectric plant, 10 miles below Fort Dodge Iowa, on the Des Moines River. The plant will cost approximately \$600,000, and the dam will be the second largest in the State, rivaled only by the one on the Mississippi River, at Keokuk, Iowa. The dam will be built after the plan of the big Spear Fish project, and will develop a 40 or 50 foot head of water. The banks on both sides of the river for some distance above the site of the dam are high, but

TABLE 1.—Climatological data for May, 1911. District No. 5, Upper Mississippi Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.			
<i>North Dakota.</i>																				
Amenia.	Cass	954	14	57.7	+ 3.1	90	14†	18	2	49	6.25	+ 3.52	2.25	0	6	17	1	13	nw.	
Bottineau.	Bottineau	1,638	16	52.6	+ 0.9	86	17	16	1	49	2.28	+ 0.11	0.96	T.	12	14	6	11	se.	
Cando.	Towner	1,488	10	53.7	+ 3.1	85	17	13	11	51 <sup>b</sup>	2.07	+ 0.63	0.82	0	9				e. t. judd.	
Crosby.	Divide	5	51.0 <sup>b</sup>			88 <sup>b</sup>	5	19 <sup>b</sup>	2	51 <sup>b</sup>	3.70		1.17	T.	11	9	15	7	U. S. Weather Bureau.	
Devils Lake.	Ramsey	1,482	6	54.0	+ 1.3	88	17	19	2	37	3.13	+ 0.93	0.84	T.	11	9	16	9	L. H. Trowbridge.	
Donnybrook.	Ward	1,760	12	53.3	+ 5.1	89	6	12	2	48	1.92	+ 0.08	1.37	T.	8	17	3	11	H. R. Aslakson.	
Dunseith.	Rolette	14	52.8	- 0.8		85	5	15	1	52	1.92	+ 0.29	0.35	0	8	16	12	3	A. Maltby.	
Edmore.	Ramsey	1,524	6	54.8		92	17	17	1†	47	3.37	- 0.30	1.10	T.	11	14	9	8	A. R. T. Wylls.	
Forman.	Sargent	1,249	17	61.6	+ 6.1	99	14	20	2	44	2.46	+ 2.02	1.02	T.	11	14	9	8	W. A. Christiansen.	
Grafton.	Walsh	827	20	56.6	+ 3.7	91	17	20	2	46	3.76	+ 0.59	0	6	9	14	s.	J. Moffatt.		
Granville.	McHenry	1,504	5	54.0		92	13	13	2	48	1.73		0.69	7.0	9	11	10	Geo. Dale.		
Hannah.	Cavalier	1,568	6	50.8		87	17	12	2	52	3.56		2.18	T.	12	16	5	10	F. E. Mayall.	
Hansboro.	Towner	3	52.1			86	17	14	1†	48	2.95		0	11	19	7	5	C. R. Petes.		
Hillsboro.	Trail	901	6	58.1		89	17	21	2	50	6.49		1.46	0	12	13	3	n.	J. Woolner.	
Lakota.	Nelson	1,519	15	52.4		85	17	18	1†	43	4.42		1.40	0	10	16	0	15	J. Dexter Pierce.	
Langdon.	Cavalier	1,615	16	50.8		83	18	18	1	48	2.79		0.79	0	10	13	4	9	H. K. Adams.	
Larimore.	Grand Forks	1,134	16	55.6	+ 3.3	87	18	19	2	45	7.54	+ 5.50	1.99	0	13	18	4	9	N. P. Swenson.	
Lisbon.	Ransom	1,091	7																P. B. Anderson.	
McKinney.	Renville	1,640	17	53.2	+ 0.8	89	5	8	2	55	2.76	+ 0.86	1.25	0	7	13	8	10	W. C. Gould.	
Manfred.	Wells	1,605	10	55.2		89	17	13	1	48	2.90		0.43	0	9	18	2	11	J. J. Bates.	
Mayville.	Trail	975	15	63.3	+ 8.3	89	17	24	1	42	5.22	+ 2.57	1.41	T.	10	22	3	7	S. S. Marsh.	
Minot.	Ward	1,557	13	54.8	+ 1.6	88	6	13	2	48	2.03	- 0.37	0.70	0	9	21	2	8	W. E. Williams.	
Minto.	Walsh	820	18	59.0 <sup>d</sup>	+ 5.4	90	17	30	12	48 <sup>b</sup>	5.03	+ 2.96	2.02	0	10	14	10	7	A. Heyward.	
Oriska.	Barnes	1,270	6	57.3		88	17	20	2	50	6.59		2.18	0	8	19	7	5	C. W. Shumaker.	
Park River.	Walsh	998	8																J. A. Power.	
Pembina.	Pembina	789	13	54.2		88	17	16	2	47	5.18		1.80	0	12	15	2	14	W. B. Abern.	
Power.	Rickland	1,030	19	51.1	+ 3.3	95	17	21	2	46	5.02	+ 2.62	1.65	0	6	16	5	10	B. Bagley.	
Pratt.	McHenry	6	53.8			89	13	12	2	66	1.67		0.49	0	8	16	8	7	H. E. Simpson.	
Towner.	do	3	55.1			88	13†	12	1	51	1.90		0.51	0	7	15	1	5	E. G. Burch.	
University.	Grand Forks	830	19	57.1	+ 3.4	89	17	18	2	49	3.28	+ 0.74	1.02	0	12	19	7	5	C. H. Lee.	
Wahpeton.	Rickland	962	19	58.4	+ 1.9	92	17	18	2	48	1.41	- 1.50	1.04	0	6	18	7	6	C. W. Clark.	
Walhalla.	Pembina	966	7																M. A. Ostby.	
Westhope.	Bottineau	5																		
Willow City.	do	1,471	18	50.6		88	17	10	1†	61	1.59		0.39	0	8	10	14	7	nw.	
<i>Minnesota.</i>																				
Albert Lea.	Freeborn	1,229	20	63.2	+ 5.6	91	25	29	3	39	4.90	+ 0.68	1.70	T.	8	14	16	1	Edward Carey.	
Alexandria.	Douglas	1,391	17	60.2	+ 6.5	93	18	26	3	46	2.54	- 0.74	1.20	0	11	13	3	15	P. O. Unumb.	
Angus.	Polk	870	9	56.0		90	17	15	2	49	2.71		0.85	1.0	11	18	7	6	John Nadovnik.	
Bagley.	Clearwater	5	55.4			89	17	13	3	53	3.63		1.00	2.0	10	8	18	5	Jens Nelson.	
Beardsley.	Bigstone	1,090	17						3	47	5.36		2.20	2.0	8	12	13	6	Roy A. Smith.	
Beaupreau.	Mahnomen	1,200	9	59.0		89	17†	15	2	48	3.81	+ 0.93	0.56	0	7	15	10	6	Dr. P. A. Slattery.	
Bird Island.	Renville	1,039	21	62.1	+ 5.8	94	26	19	2	53	2.05	- 1.10	0.68	0	7	14	11	6	Dr. F. L. Puffer.	
Caledonia.	Houston	1,179	18	63.0	+ 6.0	90	26	28	2	50	5.04	+ 0.21	1.55	6.0	14	20	5	6	W. D. Belden.	
Campbell.	Wilken	984	2	58.8		96	14	15	2	54	4.17		1.10	0	10	17	2	12	J. T. Neiss.	
Cass Lake.	Cass	1,300	4																C. W. Burns.	
Collegeville.	Stearns	1,282	18	62.7	+ 6.8	89	10†	28	1†	43	3.82	+ 0.74	2.16	0	8	19	6	6	Fridolin Tembreul.	
Crookston.	Folk	863	21	56.9	+ 3.6	89	17	21	1†	42	3.81	+ 0.93	0.56	0	7	14	11	6	A. G. Andersen.	
Detroit.	Becker	1,364	15	58.9	+ 6.4	90	26	18	3	51	3.18	- 0.50	1.10	0	7	12	18	2	11	G. W. Peoples.
Ely.	St. Louis	1,364	5	55.8		89	26	23	1	44	3.80		0.78	0	12	18	2	11	Rev. W. H. Farrell.	
Fairmont (near).	Martin	1,240	24	62.5	+ 6.2	89	17†	28	2	37	1.57	- 0.26	0.36	1.0	8	14	9	4	W. F. Wherland.	
Faribault.	Rice	1,003	14	62.8	+ 6.2	91	10†	28	2	41	2.95	- 0.53	1.15	0	10	15	7	9	Dr. A. C. Tanner.	
Farmington.	Dakota	902	23	64.2	+ 8.0	94	18	27	2	45	2.59	- 0.61	1.06	0	10	15	7	9	E. D. Akin.	
Fergus Falls.	Ottovall	1,210	19	60.8	+ 5.8	90	26	22	2	47	3.71	- 0.04	1.62	0	9	13	14	4	C. E. Kissinger.	
Fort Ripley.	Crow Wing	1,136	4	60.0		94	26	21	3	54	3.40	+ 0.24	1.30	0	6	20	2	9	J. J. Tucker.	
Fosston.	Folk	1,288	2	56.3		87	17	18	2	43	4.72		1.46	1.9	13	15	3	0. N. Hem.		
Fram.	Marshall	4																A. W. Clark.		
Glencoe.	McLeod	1,000	15	63.6	+ 7.6	91	17†	26	2†	40	1.64	- 2.35	0.50	0	6	19	11	1	F. B. Reed.	
Grand Meadow.	Mower	1,338	23	61.4	+ 6.1	90	17†	28	1	41	6.57	+ 1.80	2.73	2.0	9	15	9	7	C. F. Greening.	
Gull Lake Dam.	Cass	1,215	12	61.5		93	25	28	3	51	2.29		0.98	0	8	14	16	1	G. A. Williams.	
Hallock.	Kittson	815	12	55.7	+ 3.2	88	17	17	2	50	4.34	+ 1.90	1.30	0	10	13	5	D. A. Robertson.		
Halstad.	Norman	870	5	56.8		89	17	15	2	48	5.76		1.68	0	9	15	7	9	A. G. Holstrom.	
Hinckley.	Pine	1,050	6	58.8		91	26	24	2	47	3.79		1.10	0	7	13	10	8	W. R. Newman.	
International Falls.	Koochiching	1,112	3	56.0		92	17	22	1	46	2.07		0.48	T.	7	15	8	8	Rees Roe.	
Itasca State Park.	Clearwater	1,500	4	60.4d		96	18	19	3	53	4.83		2.00	0	12				J. A. Stillwell.	
Kellher.	Beltrami	4																A. Gilmour.		
Lake Crystal.	Blue Earth	4	62.8			91	26	28	2	35	2.30		0.85	0	10	17	2	2	W. P. Cobb.	
Leech Lake Dam.	Cass	1,301	23	56.2	+ 5.5	88	17†	19	4	49	3.93	+ 0.59	1.35	0	12	25	2	4	Hans Olson.	
Litchfield.	Meeker	1,134	2	54.8		92	17	15	3	54	1.73		0.60	0	7	16	12	3	N. Y. Taylor.	
Little Fork.	Koochiching	1,299	19	60.6	+ 6.2	96	26	21	2	51	2.33	- 0.91	1.33	0	3	11	13	7	O. C. Olson.	
Long Prairie.	Todd	1,299	19	61.8	+ 5.8	93	19	23	3	46	1.69	- 2.12	0.55	0	5	22	8	1	A. L	

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Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	
<i>Minnesota—Continued.</i>																			
St. Cloud.....	Sherburne.....	1,020	33	62.7	+ 8.6	92	10†	26	2	49	5.86	+ 2.16	2.41	0	8	15	10	6	se.
St. Paul.....	Ramsey.....	837	40	62.7	+ 4.5	90	17	29	2	37	3.99	+ 0.37	2.34	0	9	10	18	3	s.
St. Peter.....	Nicollet.....	825	17	64.4	+ 7.0	89	18†	25	3	43	3.57	- 0.09	1.90	0	7	14	10	7	s.
Sandy Lake Dam.....	Aitkin.....	1,234	18	53.8	+ 1.8	84	25	21	2	38	3.47	+ 0.34	1.63	0	8	8	17	6	sw.
State Sanatorium.....	Cass.....	3	58.9	.....	.....	89	17†	24	2	38	3.95	.....	1.27	0	13	18	9	4	e.
Stillwater.....	Washington.....	694	6	.....	.....	.....	.....	.....	.....	.....	2.04	.....	7.64	0	13	15	6	10	sw.
Taylors Falls.....	Chisago.....	759	4	62.7	.....	92	18	23	3	48	3.39	.....	1.60	0	8	14	10	7	s.
Warroad.....	Roseau.....	1,049	2	55.2	.....	89	17	14	2	49	3.12	.....	0.78	0	8	17	7	7	c.
West Concord.....	Dodge.....	1,232	3	62.7	.....	90	17	27	2	44	4.09	.....	1.33	1.0	7	11	15	5	se.
Winnebago.....	Faribault.....	1,100	12	64.4	+ 8.6	95	18	27	3	48	2.43	- 2.13	0.85	3.0	11	16	12	4	se.
Winnibigoshish.....	Itasca.....	1,300	23	57.7	+ 8.2	89	17	26	1†	43	4.11	+ 1.09	1.04	0	14	18	7	6	nw.
Winona.....	Winona.....	700	66.1	.....	6.7	94	26†	29	2	46	4.02	- 0.77	1.33	3.0	9	10	6	9	s.
Worthington.....	Nobles.....	1,593	16	62.0	+ 6.0	90	9†	26	2	46	2.43	- 1.54	1.04	0	7	20	5	6	s.
Zumbrota.....	Goodhue.....	917	15	62.8	+ 5.3	89	18	27	3	43	5.39	.....	2.65	0	9	15	13	3	nw.
<i>South Dakota.</i>																			
Milbank.....	Grant.....	1,148	20	60.4	+ 4.9	95	17†	17	2	55	1.52	- 1.88	0.46	0	7	17	3	11	nw.
<i>Wisconsin.</i>																			
Antigo.....	Langlade.....	1,439	17	58.7	+ 4.8	89	26	19	2	44	5.47	.....	1.14	1.0	10	16	5	10	se.
Barron.....	Barron.....	1,115	20	60.1	+ 7.2	88	26	22	2†	45	3.68	- 0.61	1.20	0	10	18	12	1	sw.
Beloit.....	Rock.....	750	45	64.2	+ 5.5	89	27	29	2	51	2.71	- 0.85	0.83	0	5	23	0	8	s.
Big St. Germain Dam.....	Vilas.....	1,590	1	57.7	.....	91	26	13	2	49	4.08	.....	0.75	0	15	14	11	6	sw.
Brodhead.....	Green.....	812	13	65.0	+ 5.8	92	25†	26	3	38	2.96	- 0.85	0.72	T.	8	18	11	2	sw.
Burnett.....	Dodge.....	880	7	61.9	.....	87	26†	27	2	33	4.75	.....	0.77	T.	13	12	10	9	sw.
Cottage Grove.....	Dane.....	888	.....	.....	.....	.....	.....	.....	.....	.....	4.04	.....	1.87	T.	9	14	9	6	se.
Darlington.....	Lafayette.....	867	5	63.3	.....	91	26†	24	2	49	4.05	.....	1.10	0	7	13	14	4	s.
Deerskin Dam.....	Forest.....	1,625	12	54.6	90	26	12	2	51	7.28	.....	1.42	0	15	11	16	4	sw.	
Delavan.....	Walworth.....	920	20	64.0	+ 6.5	93	26	26	2	41	1.47	- 2.36	0.45	T.	11	16	10	5	sw.
Dodgeville.....	Iowa.....	1,116	11	.....	.....	.....	.....	.....	.....	.....	4.04	.....	0.77	T.	13	12	10	9	sw.
Downing.....	Dunn.....	983	9	60.9†	.....	90†	17†	20†	4	49†	4.44	.....	1.30†	T.	6*	3*	8*	17*	w.
Eau Claire.....	Eau Claire.....	800	26	63.5	+ 6.5	92	26	27	2	43	5.52	+ 1.15	1.76	T.	15	16	14	2	sw.
Grand Rapids.....	Wood.....	1,021	12	61.1	+ 4.8	91	26	21	2	44	6.93	+ 2.76	2.23	T.	14	16	5	10	s.
Grantsburg.....	Burnett.....	1,095	20	61.2	+ 6.6	94	25	20	2	49	3.15	- 0.96	1.35	0	8	11	8	12	sw.
Hancock.....	Vaushara.....	1,091	19	63.2	+ 6.6	93	26	23	2	41	7.40	+ 3.40	1.85	T.	14	14	7	10	sw.
Hatfield.....	Jackson.....	973	17	60.4	+ 1.8	92	26	20	2	45	7.55	+ 2.92	1.72	0.2	13	11	13	7	w.
Hayward.....	Sawyer.....	1,197	20	59.2	+ 6.0	91	26	18	3	45	4.93	- 0.84	1.00	0	9	11	6	14	s.
Hillsboro.....	Vernon.....	1,000	20	61.0	+ 5.4	91	25	21	2	44	6.37	+ 2.03	1.55	1.0	12	14	11	6	sw.
Koepenick.....	Langlade.....	1,683	20	57.0	+ 2.5	87	26	13	2	46	4.82	+ 1.20	0.90	2.0	12	0	24	7	sw.
Lac du Flambeau.....	Vilas.....	1	59.2	.....	93	26	22	2	39	4.57	.....	1.74	0	10	17	5	9	s.	
La Crosse.....	La Crosse.....	714	39	64.2	+ 4.7	91	26	26	2	46	5.20	+ 1.45	1.53	5.2	13	9	12	10	se.
Lake Mills.....	Jefferson.....	897	20	63.6	+ 6.8	91	27	27	2	35	2.96	- 1.19	0.90	0.4	10	12	15	4	sw.
Lancaster.....	Grant.....	1,070	20	64.4	+ 6.2	90	25†	26	2	35	5.74	+ 1.39	2.63	0	10	11	13	7	sw.
Long Lake.....	Oneida.....	1,502	5	56.5	.....	92	26	9	2	55	4.88	.....	0.95	0	18	17	6	8	sw.
Madison.....	Dane.....	974	42	63.4	+ 5.8	88	26	31	2	44	6.37	.....	1.55	1.0	12	14	11	6	sw.
Mather.....	Juneau.....	962	7	61.2	.....	91	26	16	2	41	7.49	.....	1.08	T.	14	11	9	11	w.
Mautson.....	Buffalo.....	882	15	63.5	+ 7.4	90	26	27	2	41	7.12	+ 2.76	1.50	T.	12	16	9	6	sw.
Meadow Valley.....	Taylor.....	974	20	61.6	+ 5.4	91	26	13	2	44	6.39	+ 2.10	0.88	4.0	12	6	24	1	se.
Medford.....	Lincoln.....	1,420	22	59.8	+ 5.9	88	26	20	2	42	5.60	+ 1.34	1.80	0	9	22	6	3	w.
Merrill.....	Minocqua.....	1,604	5	58.0	.....	91	26	18	2	45	3.84	.....	0.80	0	18	12	13	6	s.
Mondovi.....	Buffalo.....	738	3	62.6	.....	91	17	26	4	44	5.86	.....	2.25	0.5	12	13	9	5	sw.
Mount Horeb.....	Dane.....	1,226	7	63.1	.....	88	25†	22	2	33	3.33	.....	0.82	T.	7	18	2	11	s.
Muscosa.....	Grant.....	666	2	65.7	.....	95	25	25	2	46	3.72	.....	0.91	0	10	15	7	9	w.
Neillsville.....	Clark.....	996	21	62.6	+ 7.1	94	26	22	2	45	7.56	+ 3.32	1.59	T.	10	14	1	16	sw.
New Richmond.....	St. Croix.....	990	6	62.2	.....	93	17†	24	6	52	5.29	.....	0.67	0	13	11	9	11	sw.
Osceola.....	Folk.....	806	20	60.8	+ 6.2	92	25	20	5	60	2.93	- 1.34	1.55	0	7	11	9	11	s.
Portage Falls.....	Price.....	1,492	20	57.8	.....	91	26	15	2	48	3.10	.....	0.87	0	13	4	22	5	nw.
Portage.....	Columbia.....	809	22	64.7	+ 6.0	91	25†	27	2	42	6.16	+ 2.15	1.47	T.	10	19	8	4	sw.
Port Edwards.....	Wood.....	969	1	66.2	.....	92	26	26	2	46	6.68	.....	1.20	0	11	8	0	23	sw.
Prairie du Chien.....	Crawford.....	690	20	64.7	+ 4.3	94	25	28	3	44	4.83	+ 0.50	1.28	T.	11	15	3	13	s.
Prentice.....	Price.....	1,551	13	56.6	+ 4.0	87	26†	16	2	44	4.53	+ 0.95	1.55	0.2	8	12	5	14	s.
Rhineland.....	Oneida.....	1,550	5	59.4	.....	90†	26	18	2	46	5.89	.....	1.96	T.	16	11	7	13	sw.
Sauk City.....	Lafayette.....	758	3	65.2	.....	95	19	22	2†	41	4.50	.....	1.82	T.	8	13	11	4	sw.
Shullsburg.....	Oneida.....	1,019	5	63.6	.....	87	10†	25	2	39	3.95	.....	1.32	T.	8	16	7	8	s.
Solon Springs.....	Douglas.....	1,083	1	56.5	.....	93	26	18	4	51	3.80	.....	1.20	0	12	12	12	7	nw.
Spooner.....	Washburn.....	1,104	17	60.2	+ 5.7	90	18†	23	1†	41	2.94	- 0.58	0.80	T.	12	13	9	9	s.
Stanley.....	Chippewa.....	1,082	7	60.7	.....	88	26	23	2	40	4.60	.....	0.85	1.0	10	16	10	9	nw.
Stevens Point.....	Portage.....	1,113	18	61.6	+ 5.4	92	27	14	2	45	5.99	+ 1.90	2.10	2.0	10	16	9	6	nw.
Sugar Camp Dam.....	Oneida.....	1,582	1	58.7	.....	89</													

TABLE 1.—Climatological data for May, 1911. District No. 5—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.				Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.				
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeted.	Number of rainy days.	Number of clear days.	Number of partly cloudy days.	Number of overcast days.			
<i>Iowa—Continued.</i>																					
Burlington.	Des Moines.	544	15	67.6	+ 3.8	95	25†	31	2	40	1.23	- 2.62	0.35	...	11	20	4	7	sw.	Max E. Poppe, Jr.	
Carroll.	Carroll.	1,265	21	63.7	+ 4.8	92	24	28	1	36	3.05	- 1.51	0.70	...	10	18	5	8	nw.	Mrs. Jos. J. Wolfe.	
Cedar Rapids.	Linn.	733	29	66.2	+ 6.2	95	25†	31	4	35	3.84	- 0.94	1.08	T.	13	23	1	7	s.	R. S. Toogood.	
Charles City.	Floyd.	1,015	20	63.4	+ 3.9	91	25	30	1	35	5.87	+ 0.93	2.0	...	6	13	12	12	sw.	U. S. Weather Bureau.	
Clear Lake.	Cerro Gordo.	1,241	13																Oscar Stevens.		
Clinton.	Clinton.	593	44	68.2	+ 6.0	93	25†	28	2	40	2.15	- 1.91	1.12	...	7	17	11	3	s.	Luke Roberts.	
Columbus Junction.	Louise.	595	10	67.3	+ 5.1	93	25	31	2	35	2.26	- 1.62	0.58	...	7	24	5	2	s.	J. B. Johnston.	
Davenport.	Scott.	580	40	68.0	+ 6.5	93	25	33	2	34	2.25	- 1.94	1.33	0	9	17	9	5	sw.	U. S. Weather Bureau.	
Decorah.	Winneshiek.	875	18	64.6	+ 5.4	97	25	23	3	41	5.60	+ 1.02	0.99	...	11				s.	F. H. Baker.	
Delaware.	Delaware.	1,083	20	64.4	+ 6.1	90	25†	28	2	34	5.33	+ 1.14	1.53	T.	10	15	13	13	sw.	William Ball.	
Des Moines.	Polk.	861	33	65.9	+ 4.3	93	25	34	1	36	2.44	- 2.12	0.65	T.	11	7	9	15	s.	U. S. Weather Bureau.	
Dubuque.	Dubuque.	639	33	65.9	+ 5.1	91	25	31	2	31	2.84	- 1.48	0.83	T.	12	12	12	7	s.	Do.	
Earlham.	Madison.	9	65.4	91	10†	31	2	42	3.25	...	1.24	T.	8	15	4	12	s.	George Phillips.			
Elkader.	Clayton.	727	32	65.7	+ 5.2	94	26	27	2†	44	5.69	+ 1.55	1.27	0.5	13	17	11	3	se.	Chas. Reinecke.	
Elma.	Howard.	2	62.7	90	25†	26	3	40	5.02	...	1.20	4.0	12	9	20	2	2	se.	H. A. Moore.		
Estererville.	Emmet.	1,288	16	62.4	+ 5.2	93	17	29	2†	43	2.76	- 1.42	1.10	...	9	26	0	6	s.	A. O. Peterson.	
Fairfield.	Jefferson.	27	67.0	+ 6.8	91	25	33	2	32	2.55	- 2.73	0.52	0	11	20	7	4	sw.	R. Monroe McKenzie.		
Fayette.	Fayette.	1,003	21	63.4	+ 6.0	90	25†	27	3	40	8.73	+ 3.94	1.90	...	13	17	7	7	sw.	R. Z. Latimer.	
Forest City.	Winneshiek.	1,228	17	63.4	+ 5.1	93	25	29	2†	42	4.62	+ 0.23	1.75	T.	9	15	10	6	s.	J. A. Peters.	
Fort Dodge.	Webster.	1,126	11	64.8	+ 4.8	98	25	30	1	41	4.71	+ 0.16	2.00	0.5	9	16	5	10	sw.	J. F. Monk.	
Fort Madison.	Lee.	516	62												8	16	6	6	sw.	Miss L. A. McCready.	
Gilmantown.	Marshall.	1,062	12												11	18	3	10	s.	J. L. Wylie.	
Grand Meadow.	Clayton.	1,180	20	63.6	+ 5.5	87	25†	30	1†	38	5.65	+ 0.79	1.24	2.0	13	12	6	6	se.	F. L. Williams.	
Greene.	Butler.	13													11	18	3	10	s.	J. L. Cole.	
Grinnell.	Powershiek.	1,023	19	65.9	+ 6.2	93	25	30	2	37	3.47	- 1.12	0.73	T.	14	17	8	6	sw.	D. W. Brainard.	
Grundy Center.	Grundy.	976	20	65.3	+ 6.8	98	27	30	1	40	6.38	+ 1.22	1.80	...	11	21	0	10	s.	J. B. Calderwood.	
Guthrie Center.	Guthrie.	1,077	16	65.2	+ 4.6	93	25	31	2	38	4.90	- 0.00	2.12	T.	10	17	5	3	sw.	D. G. Beardsley.	
Hampton.	Franklin.	1,155	21	64.6	+ 6.3	93	25	29	1	38	5.50	+ 0.92	2.20	0	10	11	15	5	sw.	E. C. Grenelle.	
Humboldt.	Humboldt.	1,095	24	64.0	+ 5.2	93	25	29	2†	40	3.49	- 0.87	1.79	...	8	22	7	2	sw.	Henry S. Wells.	
Independence.	Buchanan.	921	47	64.6	+ 5.4	90	25	30	2	35	5.58	+ 1.42	2.25	T.	9	21	5	5	s.	R. E. Dudley.	
Indiana.	Warren.	969	20	66.3	+ 5.6	92	25	33	2	35	2.53	- 2.11	0.75	T.	11	10	9	12	sw.	Prof. J. L. Tilton.	
Iowa City.	Johnson.	683	51	64.8	+ 4.5	91	25	30	2†	35	4.74	+ 0.37	1.70	...	11	16	1	14	sw.	Prof. A. G. Smith.	
Iowa Falls.	Hardin.	1,170	18	63.1	+ 4.4	92	25	28	3	40	5.21	+ 1.01	1.08	1.5	11	18	3	10	sw.	J. B. Parmelee.	
Jefferson.	Greene.	12	66.4	94	25	31	2	42	3.38	...	1.63	0.33	0.83	0	8	17	12	2	s.	M. E. Hall.	
Keokuk.	Lee.	547	40	70.2	+ 7.0	94	25	35	3	44	3.42	- 2.23	0.93	...	0	6	17	12	2	s.	U. S. Weather Bureau.
Keesauqua.	Van Buren.	644	19	67.1	+ 4.5	95	25†	30	2†	44	2.14	- 2.23	0.59	...	10	7	16	8	sw.	J. H. Landes.	
Knoxville.	Marion.	920	16	66.6	+ 4.4	92	25	33	2	38	3.37	- 0.20	1.35	...	9	12	10	9	sw.	Casey & Bellville.	
Leona.	Warren.	12													0	14	5	20	6	s.	J. B. Alter.
Le Claire.	Scott.	576	11												0	11			s.	Miss M. T. Disney.	
Marshalltown.	Marshall.	947	19	66.2	+ 6.5	94	25	31	2	38	6.96	+ 2.28	2.30	...	16	17	6	8	s.	Ralph B. Reasoner.	
Mason City.	Cerro Gordo.	1,132	14	63.1	+ 4.7	91	25	28	2	38	3.38	- 0.72	1.68	...	9	15	11	5	sw.	J. S. Mills.	
Mount Pleasant.	Henry.	729	30	67.0	+ 4.8	92	26	31	2	37	3.03	- 1.15	1.02	0	10	15	14	2	sw.	J. W. Edwards.	
Muscatine.	Muscatine.	51													8	20	6	5	s.	William Molls.	
New Hampton.	Chickasaw.	1,169	14	63.6	+ 5.7	91	25	28	1	37	4.74	+ 0.10	1.12	...	8	11			s.	A. F. Kemman.	
Newton.	Jasper.	944	23												3.0	4	15	12	4	s.	Hon. J. P. Beatty.
Northwood.	Werth.	1,222	15	62.2	+ 4.3	87	15	28	1†	36	4.46	- 0.52	2.46	...	8	17	5	3	s.	Chas. H. Dwelle.	
Olin.	Jones.	790	13	64.9	+ 4.9	94	26	24	2	38	4.86	+ 0.37	2.46	...	5	15	11	5	sw.	M. H. Crissman.	
Osage.	Mitchell.	1,184	24	64.8	+ 7.7	92	25	29	1	39	6.29	+ 1.53	2.50	...	12	14	4	4	sw.	Dr. A. D. Bundy.	
Oskaloosa.	Mahaska.	843	35	66.6	+ 6.2	92	25	32	2	35	6.23	- 1.05	1.10	T.	9	17	1	13	s.	Joseph Boyd.	
Ottumwa.	Wapello.	649	16												5	18	5	8	w.	Chester Potter.	
Pella.	Marion.	877	9	66.4	92	25	30	2	39	3.74	...	1.03	T.	11	26	1	4	s.	J. H. Ver Steeg.		
Perry.	Dallas.	975	10	65.2	+ 3.3	93	25	31	2	33	8.65	- 1.15	1.18	T.	9	15	8	8	s.	Ed. S. Gray.	
Plover.	Pocahontas.	1,426	15	64.4	+ 5.3	93	26	29	2†	37	3.56	- 0.71	1.10	...	9	22	8	1	s.	J. S. Smith.	
Pocahontas.	do.	1,248	7	63.6	91	25	29	2	36	3.74	...	1.30	1.30	...	11	20	7	4	s.	F. E. Hronek.	
Ridgeway.	Winnesheik.	1,215	13	64.4	+ 4.8	91	25	33	1†	37	4.50	- 0.87	1.10	2.5	13	21	7	3	s.	Arthur Betts.	
Rockwell City.	Calhoun.	15		63.6	+ 4.1	94	25	32	2	40	5.62	+ 0.61	2.00	...	10	20	10	1	sw.	C. M. Randall.	
Sac City.	Sac.	1,278	35	64.5	+ 5.9	91	25	31	1†	35	3.70	- 0.53	1.17	3.0	10	14	8	9	sw.	E. N. Baily.	
Saint Charles.	Madison.	1,070	10	66.0	+ 4.1	93	25	32	2	36	2.42	- 2.50	0.57	0	10	19	10	2	sw.	R. D. Minard.	
Sigourney.	Keokuk.	877	15	66.8	+ 3.8	92	18†	30	2	38	3.13	- 1.00	1.00	T.	11	3	26	2	sw.	J. T. Parker.	
Stockport.	Van Buren.	745	9	67.0	92	25	29	2†	40	3.07	- 0.69	0.64	0.0	0	10	17	10	4	s.	C. L. Beswick.	
Storm Lake.	Buena Vista.	1,140	22	63.5	+ 5.9	88	18†	30	1†	32	4.48	- 1.40	1.26	T.	8	13	11	7	s.	Prof. Warren Ingold.	
Stuart.	Guthrie.	1,216	12	68.2	+ 7.7	94	25†	32	2	34	2.52	- 2.66	1.37	0	7	20	10	1	sw.	J. P. Fox.	
Tipton.	Cedar.	807	12	68.2	+ 7.7	94	25†	32	2	34	2.52	- 2.66	1.37	0	7	20	10	1	sw.	F. K. Gregg.	
Toledo.	Tama.	856	17	65.7	+ 5.0	91	25	31	2	33	4.30	+ 0.70	1.37	T.	8	20	5	6	s.	I. F. Giger.	
Wapello.	Louis.	583	13	67.2	+ 4.6	89	25†	32	2	31	1.94	- 1.95	1.18	...	6	22	8	1	sw.	G. W. Schofield.	
Washington.	Washington.	769	29	67.8	+ 6.8	93	25</														

TABLE 1.—Climatological data for May, 1911. District No. 5—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.			
<i>Illinois—Continued.</i>																					
Astoria.....	Fulton.....	650	12	67.8	+ 6.0	93	26	30	2	38	1.14	- 2.56	0.52	T.	6	20	8	3	s.	Edward V. Bohl.	
Aurora.....	Kane.....	687	32	64.8	+ 5.7	92	25†	28	2	40	2.31	- 1.77	0.76	0	6	13	11	7	sw.	W. Holden.	
Bement.....	Piatt.....	700	4	67.6	+ 6.0	96	26	32	3	37	1.40	- 2.85	0.83	0	5	24	2	5	s.	Rev. C. S. Adams.	
Bloomington.....	McLean.....	840	20	69.4	+ 6.3	95	24†	29	2	40	1.73	- 3.61	0.12	0	7	21	8	2	sw.	Prof. H. N. Pearce.	
Cairo.....	Alexander.....	359	33	72.4	+ 4.9	96	28	43	2	28	0.22	- 4.44	0.68	0	4	15	13	3	s.	U. S. Weather Bureau.	
Carbondale.....	Jackson.....	412	6	71.8	+ 6.0	101	28	35	2	44	1.47	- 2.08	0.99	0	23	3	3	5	sw.	State Normal University.	
Carlinville.....	Macoupin.....	663	21	69.2	+ 5.1	96	26	32	2	39	2.49	- 1.81	1.72	0	7	23	5	3	sw.	W. T. Eddy.	
Clinton.....	Dewitt.....	727	1	68.0	+ 5.7	94	26†	30	2	35	3.03	- 2.44	1.24	0	8	24	6	1	sw.	J. F. Ziegler.	
Coatsburg.....	Adams.....	763	19	69.1	+ 5.2	95	25†	35	2	37	1.42	- 2.75	1.02	0	4	26	3	2	s.	Dr. J. R. Lambert.	
Cobden.....	Union.....	656	28	71.4	+ 4.4	98	26†	39	3	33	1.31	- 3.18	0.83	0	4	19	9	3	s.	John Buck.	
Dakota.....	Stephenson.....	929	6	63.8	.....	90	25†	37	2	37	2.97	-	0.82	T.	9	14	15	2	w.	Rev. G. W. Kerstetter.	
Decatur.....	Macon.....	685	20	69.0	+ 5.7	96	26†	32	3	37	3.60	- 0.48	2.92	0	7	24	4	3	sw.	Prof. J. H. Coonradt.	
Dixon.....	Lee.....	725	21	66.0	+ 6.2	96	25	30	2	39	3.69	- 2.18	0.89	0	11	21	6	4	sw.	H. U. Bardwell.	
Du Quoin.....	Perry.....	459	23	70.6	+ 3.5	97	28	30	3	37	3.79	- 1.88	1.15	0	5	20	8	3	sw.	G. H. Knetzger.	
Dwight.....	Livingston.....	600	18	67.8	+ 6.6	97	26	30	2	37	3.79	- 0.75	1.21	0	8	14	10	7	sw.	Edward O. Welch.	
Elgin.....	Kane.....	716	4	65.3	.....	94	26	30	2	37	1.24	-	0.52	0	10	19	9	2	sw.	Elgin Observatory.	
Galva.....	Henry.....	842	19	67.7	+ 6.6	95	25†	29	2	38	1.62	-	2.41	0.51	0	13	21	1	9	sw.	Prof. F. U. White.
Greenville.....	Bond.....	635	33	69.7	+ 5.6	96	28	35	2	31	0.96	-	3.75	0.32	0	5	19	8	4	sw.	M. S. Oudyn.
Griggsville.....	Pike.....	650	26	68.7	+ 4.7	92	28	33	2	31	1.21	-	3.63	0.68	0	3	24	5	2	sw.	George F. Kneeland.
Havana.....	Mason.....	475	19	71.8	+ 7.7	96	26	33	2	37	1.51	- 2.26	0.48	0	4	20	10	1	s.	F. and C. Borgel.	
Henry.....	Marshall.....	500	23	68.8	+ 4.2	97	28	32	3	40	1.50	-	3.00	0.65	0	5	24	2	5	s.	Dr. F. A. Powell.
Hillsboro.....	Montgomery.....	675	17	68.8	+ 4.2	97	28	32	3	40	1.50	-	3.00	0	5	24	2	5	sw.	Ira L. Woodward.	
Joliet.....	Will.....	541	20	64.7	+ 4.0	92	25†	38	2	38	3.65	- 0.25	1.49	T.	11	21	7	3	sw.	F. M. Muilig.	
Kishwaukee.....	Winnebago.....	730	23	64.4	+ 6.2	90	25†	28	2	38	2.55	- 1.52	0.75	T.	8	17	8	2	sw.	George Stevens.	
La Grange.....	Cook.....	657	19	65.6	+ 7.1	96	26	28	2	39	2.44	- 1.24	0.73	0	8	17	8	2	sw.	Prof. F. E. Sanford.	
La Harpe.....	Hancock.....	698	32	69.0	+ 6.2	100	25	28	2	50	1.53	-	2.85	1.27	0	4	21	9	1	s.	George E. Campbell.
Lenark.....	Carroll.....	883	23	64.4	+ 5.6	99	26	24	2	40	4.58	- 0.10	2.10	T.	11	21	9	1	s.	M. N. Wertz.	
La Salle.....	La Salle.....	536	33	67.6	+ 6.8	95	25	32	2	36	1.97	- 1.95	1.63	0	4	14	12	5	sw.	U. S. Weather Bureau.	
Lincoln.....	Logan.....	482	23	67.8	+ 4.9	92	27	28	3	37	1.79	- 2.03	0.80	0	6	17	13	1	s.	Prof. C. S. Oglevee.	
Martinton.....	Iroquois.....	633	23	68.4	+ 7.8	98	26	30	5	42	5.79	+ 1.05	3.94	0	6	21	8	2	sw.	Joseph H. Peltier.	
Mascoutah.....	Saint Clair.....	425	21	70.6	+ 6.1	100	28	34	3	45	1.68	- 3.13	1.27	0	5	26	4	1	se.	George Henrich.	
Minonk.....	Woodford.....	745	18	69.6	+ 7.0	98	26	34	4	44	1.32	-	2.38	0.70	0	5	21	9	1	sw.	O. M. Davison.
Monmouth.....	Warren.....	784	19	68.6	+ 6.3	96	25†	29	2	40	1.53	-	2.38	0.41	0	8	20	1	10	s.	Hugh R. Moffet.
Morrison.....	Whiteside.....	685	17	65.1	+ 4.9	91	26	28	2	36	2.67	- 2.03	1.11	T.	10	20	7	4	sw.	S. A. Maxwell.	
Morrisonville.....	Christian.....	638	12	70.2	+ 6.9	94	26†	32	3	39	3.91	- 2.84	0.33	0	5	25	5	1	s.	J. D. Lewis.	
Mount Vernon.....	Jefferson.....	511	17	70.4	+ 4.4	90	27	36	3	40	1.08	- 2.76	0.85	0	4	21	7	3	sw.	Theodore P. Stelle.	
Oregon.....	Ogle.....	702	2	67.2	.....	93	27	28	2	38	1.67	-	0.60	0	4	10	8	13	s.	Samuel Ray.	
Ottawa.....	La Salle.....	500	25	68.2	+ 6.8	97	26	31	3	40	2.64	-	1.55	0.83	0	6	17	7	7	sw.	Miss M. M. Harris.
Pana.....	Christian.....	692	25	69.2	+ 6.1	96	27	35	2	34	1.12	-	3.20	0.50	0	4	26	2	3	sw.	C. W. Sibley.
Peoria.....	Peoria.....	609	33	68.2	+ 6.5	95	26	30	2	39	1.03	-	3.23	0.78	0	7	13	10	8	s.	U. S. Weather Bureau.
Pontiac.....	Livingston.....	546	9	68.8	.....	96	26	32	2	37	2.26	-	0.75	0	9	19	7	5	sw.	George Butterworth.	
Riley.....	McHenry.....	956	52	63.8	+ 6.2	90	19	27	2	33	3.64	- 1.01	1.69	T.	0	10	10	11	sw.	John West James.	
Rockford.....	Winnebago.....	763	19	65.5	+ 7.0	92	25†	29	2	34	2.98	-	1.17	0.71	0	13	22	3	6	sw.	Hosmer C. Porter.
Rushville.....	Schuylerville.....	670	20	68.9	+ 5.7	92	26	31	2	32	1.77	-	2.52	0.82	0	4	24	1	6	s.	H. F. Dyson.
St. Charles.....	Kane.....	700	16	65.0	+ 5.0	95	25†	23	2	41	2.03	-	2.13	0.56	0	10	13	17	1	sw.	Dr. William H. Bishop.
St. Peter.....	Fayette.....	9	70.2	.....	97	26†	35	3	34	0.95	-	0.45	0	3	18	12	2	e.	M. L. Lansford.		
Sparta.....	Randolph.....	538	25	70.4	+ 5.0	98	28	35	2	38	1.46	- 2.44	0.46	0	5	20	9	3	s.	James A. Caldwell.	
Springfield.....	Sangamon.....	644	33	70.1	+ 6.0	95	26	35	2	36	1.18	- 3.31	0.77	0	7	15	13	3	sw.	U. S. Weather Bureau.	
Streator.....	LaSalle.....	626	18	65.0	+ 6.5	97	26	28	3	42	3.33	- 1.14	0.86	0	10	27	3	1	sw.	Edward F. Sweetser.	
Sullivan.....	Moultrie.....	530	11	69.0	+ 5.8	97	28	33	3	40	3.21	- 1.34	0.80	0	7	18	11	2	sw.	C. A. Corbin.	
Sycamore.....	Dekalb.....	855	31	65.6	+ 7.3	97	25†	27	2	44	2.56	-	1.58	1.05	0	10	18	4	9	sw.	Miss E. I. Davis.
Walnut.....	Bureau.....	717	20	67.8	+ 5.5	94	26	30	2	37	2.60	- 1.79	0.80	0	10	19	10	2	s.	O. C. Nussle.	
White Hall.....	Greene.....	573	3	67.6	.....	94	25†	29	2	43	1.10	-	0.64	0	5	24	4	3	s.	Dr. R. A. Pritchett.	
Windsor.....	Shelby.....	681	12	68.6	+ 5.7	96	26	30	3	39	4.46	- 1.05	2.25	0	7	14	13	4	sw.	Herbert Rose.	
Winnebago.....	Winnebago.....	900	24	65.2	+ 6.9	93	26	28	2	38	2.75	- 1.50	0.74	T.	10	15	12	4	sw.	Frank Osborn.	
Yorkville.....	Kendall.....	584	24	64.5	+ 6.3	92	18†	29	2	45	3.05	- 1.13	0.85	0	6	23	3	5	w.	Herman A. Grimwood.	
Zion.....	Carroll.....	933	17	64.8	+ 5.2	91	25†	27	2	37	3.26	- 1.08	1.59	T.	8	22	6	3	sw.	Robert F. Gillogy.	

a, b, c, etc., indicate respectively 1, 2, 3, etc., days missing from the record.

\*\* Temperatures are from observed readings of the dry bulb; means are computed from the observed readings.

† Also on other dates.

T Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for May, 1911. District No. 5, upper Mississippi Valley.*

TABLE 2.—*Daily precipitation for May, 1911. District No. 5—Continued.*

Stations.	Watershed.	Day of month.																														Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Minnesota—Con.</i>																																		
Taylors Falls	St. Croix																																	3.39
Warroad	Rainy																																	3.12
West Concord	Mississippi	.40																																4.09
Winnebago	Minnesota	.85																																2.43
Winnibigoshish	Mississippi																																	4.11
Winona	do	1.33																																4.02
Worthington	Des Moines	1.04																																2.43
Zumbrota	Mississippi	.64																																5.39
<i>South Dakota.</i>																																		
Milbank	Minnesota																																	1.52
<i>Wisconsin.</i>																																		
Antigo	Wisconsin	.10																																5.47
Barron	Chippewa																																	3.68
Beolt	Rock																																	2.71
Big St. Germain Dam	Wisconsin	T.																																4.08
Brodhead	Rock	.72																																2.98
Burnett	do	.61																																4.75
Cottage Grove	do	.75	.04																														4.04	
Darlington	do	.60																																1.5
Deerskin Dam	Wisconsin	.04																																2.28
Delavan	Rock	.45	T.																															1.47
Dodgeville	do																																	
Downing	Chippewa	T.																																4.44
Eau Claire	do	.52																																5.52
Grand Rapids	Wisconsin	.72																																6.93
Grantsburg	St. Croix																																	3.15
Hancock	Wisconsin	.58																																7.40
Hatfield	Black	1.72																																7.55
Hayward	St. Croix																																	2.93
Hillsboro	Wisconsin	.85																																6.37
Koepenick	do	.20																																4.82
Lac du Flambeau	Chippewa																																	4.57
La Crosse	Mississippi	1.17																																5.20
Lake Mills	Rock	.90	T.																															4.86
Lancaster	Mississippi	.75																																5.74
Long Lake	Wisconsin	.08																																5.00
Madison	Rock	.48	T.																															2.03
Mather	Wisconsin	1.08	.65																															7.49
Maustoff	do	1.37																																7.12
Meadow Valley	do	.88																																6.39
Medford	Black	.25																																5.00
Morrill	Wisconsin																																	2.93
Minocqua	do	.03																																3.84
Mondovi	Mississippi	.65																																5.86
Mount Horeb	Rock	.67																																3.33
Muscoad	Wisconsin	.52	.05																														3.72	
Neillsville	Black	1.59																																7.66
New Richmond	St. Croix	.08																																2.59
Oscosola	do																																	2.93
Park Falls	Chippewa	T.																																3.10
Portage	Wisconsin	.50	T.																															6.16
Port Edwards	do	1.00																																6.18
Prairie du Chien	Mississippi	1.28	.22																														4.83	
P'rentice	Chippewa	.11																																4.83
Rhineland	Wisconsin	.11																																5.80
Sauk City	do	.95																																4.50
Shullsburg	Mississippi	.84																																3.95
Solon Springs	St. Croix																																	3.90
Spooner	Chippewa																																	2.94
Stanley	do	.56																																4.60
Stevens Point	Wisconsin	.20																																

TABLE 2.—*Daily precipitation for May, 1911. District No. 5—Continued.*

Stations.	Watershed	Day of month.																													Total		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
<i>Iowa—Continued.</i>																																	
Dubuque.....	Mississippi.....	.19																															2.84
Earlham.....	Raccoon.....	.04																														3.25	
Elkader.....	Mississippi.....	1.20																													5.69		
Elma.....	Wapsipin' i'n.....	1.00																													5.02		
Estherville II.....	Des Moines.....	1.10																													15.76		
Fairfield.....	Skunk.....	.52																													2.55		
Fayette.....	Mississippi.....	1.15																													8.73		
Forest City II.....	Cedar.....	1.10																													4.62		
Fort Dodge II.....	Des Moines.....	2.00																													4.71		
Fort Madison.....	Mississippi.....	T.																													2.79		
Gilmant.....	Iowa.....	.77																													0.03		
Grand Meadow.....	Mississippi.....	.92																													4.29		
Greene.....	Cedar.....																														5.65		
Grinnell.....	Iowa.....	.51																													3.47		
Grundy Center.....	Cedar.....	.78																													6.38		
Guthrie Center.....	Raccoon.....	.08																													4.96		
Hampton.....	Cedar.....																														5.50		
Humboldt.....	Des Moines.....	1.79																													3.49		
Independence.....	Wapsipin' i'n.....	T.																													2.58		
Indiana.....	Des Moines.....	.10																													4.74		
Iowa City II.....	Iowa.....	1.70	04																												5.21		
Iowa Falls II.....	do.....	.48	15																												3.38		
Jefferson.....	Raccoon.....	T.																													0.42		
Keokuk.....	Mississippi.....	T.																													1.0		
Kebauqua II.....	Des Moines.....	.30	03																												3.37		
Knoxville.....	do.....	.20																													3.66		
La Crosse.....	Mississippi.....	.30	08																												2.62		
Marshalltown II.....	Iowa.....	10	1.00																												6.96		
Mason City.....	Cedar.....	.07																													5.38		
Mt. Pleasant.....	Skunk.....	.33																													12.03		
Muscatine II.....	Mississippi.....	.44	06																												2.05		
New Hampton.....	Mapispinic n.....	1.12																													4.74		
Newton.....	Skunk.....																														4.46		
Northwood.....	Cedar.....	.30																															
Olin.....	Wapsipinic'n.....																														6.29		
Osage.....	Cedar.....	1.62																													2.68		
Oskaloosa.....	Des Moines.....	.10	T.																												1.48		
Ottumwa.....	do.....	.70																													3.74		
Pella.....	do.....	.38																													3.85		
Perry.....	Raccoon.....	.45																													3.56		
Plover.....	Des Moines.....	1.10																													3.74		
Pochontas.....	do.....	1.30																													1.62		
Ridgeway.....	Mississippi.....	.42																													3.56		
Rockwell City.....	Raccoon.....	.45																													1.62		
Sac City.....	do.....	.84																													5.35		
Saint Charles.....	Des Moines.....	.20																													3.13		
Sigourney.....	Skunk.....	.60																													3.07		
Stockport.....	do.....	.52																													2.48		
Storm Lake.....	Raccoon.....	1.26																															
Stuart.....	Cedar.....																														2.52		
Tipton.....	Toledo.....																														4.80		
Waterloo II.....	Iowa.....	1.35																													1.94		
Waupke.....	do.....	.25																													2.40		
Waverly.....	Raccoon.....	.15																													4.79		
Webster City.....	Cedar.....	1.25																													5.99		
West Bend.....	Des Moines.....	.10																													1.94		
Whitten.....	Iowa.....	1.75																													2.83		
Winterset.....	Des Moines.....	.15																													2.78		
<i>Missouri.</i>																																	
Gorin.....	Mississippi.....																														4.69		
Hannibal.....	do.....	T.																													0.70		
Louisiana.....	do.....	.03																													1.25		
Mexico II.....	do.....	.38	T.	.03																										1.72			
Steffenville.....	do.....	T.																													1.45		
Sublett.....	do.....	T.																													1.40		
Vandalia.....	do.....	T.																															

TABLE 2.—*Daily precipitation for May, 1911. District No. 5—Continued.*

Stations.	Watershed.	Day of month.																														Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Illinois—Contd.</i>																																		
Dwight.	Illinois.	.24								T.																								2.79
East St. Louis  .	Mississippi.	.86																																2.61
Edwardsville.	do	.11								T.																								0.98
Elgin.	Illinois.	T.	T.																															1.24
Gaithersburg  .	do	.19	.07																															1.62
Grafton  .	Mississippi.	.73																																1.50
Greenville.	do	.05																																2.86
Griggsville.	Illinois.	T.								T.																								1.21
Havana.	do	T.																																1.51
Henry.	do																																	
Hillsboro  .	Mississippi.	.65	.15																															1.50
Joliet.	Illinois.	.15	T.																															3.65
Kishwaukee.	Mississippi.	.52	T.																															2.55
La Grange.	do	.48																																2.44
La Harpe.	do	T.								T.																								1.53
Lamark.	Mississippi.	.50																																4.58
La Salle.	Illinois.	.10								T.																								1.97
Lincoln.	do	.02								T.																								1.79
Loami.	do	T.																																1.67
Martinton  .	do	.04																																5.79
Mascoutah.	Mississippi.																																	1.68
Minonk.	Illinois.	T.																																1.32
Monnouth.	Mississippi.																																	1.53
Morrison.	do	.24								T.																								2.67
Morrisonville.	Illinois.	.13	.01																															3.67
Mount Vernon  .	Mississippi.	.85																																1.06
Oregon.	do	.42																																1.67
Ottawa.	Illinois.	.32																																2.64
Pana.	Mississippi.	.10								T.																								1.12
Peoria.	Illinois.	T.																																1.03
Pontiac.	do	.13																																2.26
Riley.	Mississippi.	.25																																2.64
Rockford  .	do	.55	.01																														2.98	
Rushville.	Illinois.																																	1.77
St. Charles.	do	.40	.02																															2.02
St. Peter.	Mississippi.	.45																																2.95
Sparta.	do	.46																																1.46
Springfield.	Illinois.	.01																																1.18
Streetor   .	do	.29	.26																														2.33	
Sullivan.	Mississippi.	.21																																3.21
Sycamore.	do	.50	.05																															2.56
Tiskilwa.	Illinois.	.13																																1.55
Walnut.	Mississippi.	.37																																0.32
Warsaw  .	do																																	0.32
White Hall.	Illinois.	.04																																1.10
Windsor.	Mississippi.	.25																																4.46
Winnebago.	do	.60																																2.75
Zionville.	Illinois.	T.																																3.05
Zion.	Mississippi.	.03																																3.26

\* Precipitation included in that of the next measurement.

† Separate dates of falls not recorded.

|| Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—Maximum and minimum temperatures at selected stations for May, 1911. District No. 5, Upper Mississippi Valley.

Date.	North Dakota.										Minnesota.										St. Paul.		Winnibigoshish.					
	Bottineau.		Devils Lake.		Lisbon.		Minot.		Pembina.		Collegeville.		Crookston.		Grand Meadow.		Montevideo.		Moorhead.		New Ulm.		Pine River Dam.					
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1	45	16	43	20	.....	.....	47	15	46	18	49	28	42	21	44	26	54	27	48	25	53	32	47	21	49	30	47	26
2	55	17	51	19	.....	.....	55	13	55	18	51	28	50	21	50	28	57	23	54	21	55	28	52	27	52	29	51	26
3	64	24	61	25	.....	.....	66	26	64	18	58	28	58	27	59	29	66	23	62	23	62	27	57	26	60	34	58	30
4	67	32	69	37	.....	.....	69	38	74	28	67	38	69	32	64	30	78	28	72	25	69	30	66	21	65	37	68	26
5	85	40	77	43	.....	.....	86	42	78	38	72	44	74	40	70	34	76	40	75	37	76	35	72	26	71	40	69	38
6	81	44	75	46	.....	.....	88	50	80	44	72	49	77	48	72	39	79	48	79	48	78	40	74	41	74	46	72	47
7	69	36	69	47	.....	.....	71	48	74	54	72	48	71	53	76	49	67	54	82	48	77	42	69	47	75	53	68	50
8	81	38	80	43	.....	.....	84	42	85	38	78	43	80	38	81	52	83	35	83	34	84	44	78	30	82	42	76	34
9	75	42	78	47	.....	.....	83	49	79	42	80	56	76	50	87	50	94	48	84	54	93	46	77	48	80	57	70	49
10	47	40	54	36	.....	.....	51	40	54	50	89	58	57	53	89	60	92	56	63	42	91	62	68	47	88	51	69	45
11	40	32	36	33	.....	.....	48	38	50	32	85	42	49	35	79	42	64	43	42	33	66	42	64	36	61	45	04	35
12	69	26	60	32	.....	.....	75	27	58	27	64	34	55	31	62	35	69	32	68	32	60	34	62	35	57	32	60	34
13	84	35	77	48	.....	.....	74	38	78	34	79	47	78	42	78	37	84	45	84	44	86	38	80	30	80	44	76	33
14	77	50	69	51	.....	.....	75	49	68	47	88	57	80	52	77	56	92	60	89	59	88	56	86	58	76	52	68	52
15	59	43	57	47	.....	.....	55	47	58	48	84	60	68	54	80	61	76	59	88	55	82	63	78	50	72	59	76	53
16	66	50	76	52	.....	.....	70	49	70	52	85	49	80	54	83	65	90	60	84	52	91	63	71	48	86	66	69	47
17	86	46	88	52	.....	.....	85	47	88	48	87	69	89	53	90	64	96	55	92	52	92	66	88	68	90	66	89	46
18	75	50	75	51	.....	.....	74	55	76	54	89	59	82	60	90	67	97	56	86	58	86	68	90	74	90	70	88	68
19	69	39	69	47	.....	.....	70	44	73	73	83	59	75	64	82	56	74	57	76	53	78	58	82	59	75	61	82	60
20	53	39	51	42	.....	.....	61	38	53	44	75	54	55	50	77	58	74	55	60	47	68	50	79	45	79	54	73	47
21	70	20	65	38	.....	.....	72	35	68	34	67	49	67	40	59	50	63	46	70	39	65	43	68	43	64	54	72	45
22	76	41	68	41	.....	.....	74	40	72	43	72	49	63	52	54	47	68	32	62	51	75	53	80	50	74	54	67	50
23	74	44	70	44	.....	.....	74	47	74	45	73	50	70	53	70	49	80	54	72	48	75	50	70	48	68	52	83	50
24	76	52	82	51	.....	.....	73	53	78	48	79	55	83	51	80	51	86	55	84	52	85	53	79	55	79	57	81	51
25	59	40	66	46	.....	.....	62	44	69	46	85	61	69	52	89	61	86	51	72	54	93	60	82	48	85	65	84	51
26	46	42	50	40	.....	.....	44	42	46	46	89	68	84	51	89	62	95	60	93	55	95	68	91	55	90	68	84	57
27	49	35	52	38	.....	.....	49	37	53	42	86	53	60	45	82	49	71	52	62	45	68	63	85	55	79	57	74	57
28	62	30	63	33	.....	.....	65	32	62	34	66	45	64	38	61	46	70	43	65	38	65	49	66	52	63	43	63	43
29	65	33	68	46	.....	.....	67	46	72	48	72	49	73	43	72	44	76	52	74	39	78	49	72	36	71	50	72	37
30	71	48	67	51	.....	.....	76	50	59	52	74	53	80	53	77	50	82	55	63	51	80	58	66	54	74	54	69	59
31	83	48	83	49	.....	.....	85	53	81	46	77	52	80	46	79	55	86	50	82	46	76	53	77	53	76	55	78	49
Mns..	67.0	38.1	66.1	41.8	.....	.....	68.6	41.1	67.6	40.9	75.9	49.5	68.9	44.9	74.3	48.5	78.2	47.1	72.0	43.9	77.4	49.2	72.7	44.6	74.0	51.4	71.1	44.3
Wisconsin.										Iowa.										Keokuk.								
Date.	Delavan.	Eau Claire.	La Crosse.	Madison.	Mauston.	Spooner.	Wausau.	Algona.	Cedar Rapids.	Charles City.	Davenport.	Des Moines.	Dubuque.	Keokuk.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.				
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.				
1....	48	33	49	31	43	30	40	32	52	35	50	23	47	28	47	30	43	39	46	30	63	36	50	34	48	35	68	40
2....	51	26	53	27	51	26	47	31	50	27	52	23	44	21	51	30	51	33	52	32	53	35	50	31	55	35	60	35
3....	59	31	60	28	58	31	54	36	60	34	58	25	53	25	60	32	60	35	59	31	60	37	60	34	66	34	60	37
4....	61	37	67	29	65	31	60	40	60	26	65	24	60	27	66	34	64	32	66	31	60	37	66	33	66	34	60	44
5....	70	35	75	32	71	35	67	42	70	29	71	38	69	29	71	38	70	37	69	45	65	42	69	42	69	44	69	44
6....	70	37	75	41	73	45	60	46	70	40	75	45	71	40	75	41	74	41	73	43	72	47	73	47	71	43	72	46
7....	76	42	77	53	80	53	75	48	76	40	77	42	73	38	80	52	82	47	76	54	77	54	83	52	83	52	82	52
8....	70	55	83	53	81	58	67	59	76	60	77	37	74	55	82	53	82	54	82	55	88	58	88	56	88	57	87	58
9....	83	46	84	46	84	53	81	54	86	50	82	50	80	48	89	58	90	57	88	58	88	58	88	56	88	57	87	58
10....	88	54	89	60	90	60	86	56	90	56	97	52	82	50	90	64	93	59	97	60	90	64	93	59	97	60	90	64
11....	76	55	86	47	73	50	51	80	50	78	45	81	38	72	44	75	50	72	46	76	53	74	47	76	52	83	55	75
12....	71	49	62	37	65	44	64	48	65	48	61	34	65	38	69	38	68	45	68	42	72	54	49	67	52	81	55	75
13....	68	35	79	37	78	42	70	40	75	42	68	35	69	38	70	43	72	44	77	47	71	52	76	47	83	54	73	54
14....	74	50	81																									

## MONTHLY WEATHER REVIEW.

MAY, 1911

TABLE 3.—*Maximum and minimum temperatures at selected stations for May, 1911. District No. 5—Continued.*

Date.	Hannibal, Mo.		Laporte, Ind.		Illinois.															
					Cairo.		Greenville.		La Salle.		Monmouth.		Mount Vernon. <sup>§§</sup>		Peoria.		Springfield.		Winnebago.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	57	39	50	33	66	45	61	43	51	38	66	39	57	51	63	38	63	42	60	34
2.....	56	35	49	31	57	43	58	35	54	32	54	29	58	40	55	30	57	35	52	28
3.....	56	37	59	38	51	35	58	38	59	35	63	32	57	36	60	30	58	37	58	30
4.....	65	39	59	38	66	38	64	35	70	37	65	40	66	33	65	41	62	35	62	35
5.....	67	42	65	31	67	38	69	40	69	39	73	58	67	40	68	34	67	43	70	35
6.....	72	40	75	33	71	49	74	49	72	41	74	40	71	42	72	39	72	44	73	46
7.....	77	51	80	48	76	51	78	50	78	51	80	40	79	43	78	42	77	48	78	45
8.....	84	60	81	47	81	54	82	52	81	58	83	53	81	45	83	55	83	55	74	54
9.....	87	66	80	55	85	60	87	62	88	56	90	53	89	59	88	60	89	62	86	48
10.....	87	68	87	57	83	62	84	60	87	61	89	62	86	57	88	62	86	62	87	55
11.....	75	57	78	64	83	65	75	65	76	58	78	53	84	60	74	56	76	61	76	52
12.....	82	54	76	48	81	65	84	56	75	50	82	52	83	59	80	51	83	56	70	46
13.....	83	57	73	36	84	65	85	57	79	43	86	48	86	55	84	49	84	53	75	38
14.....	88	69	79	48	85	63	86	60	86	57	88	64	85	69	86	61	87	62	77	55
15.....	90	68	89	49	86	64	88	57	89	60	93	60	89	58	89	63	89	61	85	60
16.....	88	68	90	58	86	67	87	65	90	66	93	65	90	61	90	64	90	64	88	65
17.....	90	71	91	58	89	68	88	65	91	67	93	67	91	63	91	67	91	68	86	66
18.....	89	71	91	60	91	71	89	67	92	68	90	67	93	62	92	69	91	69	86	65
19.....	88	70	91	62	87	72	88	68	90	69	90	68	89	66	89	70	90	69	89	70
20.....	80	63	87	68	79	69	87	65	81	64	85	63	84	68	82	65	88	65	83	60
21.....	74	60	85	63	81	67	78	63	80	65	83	63	82	66	80	64	81	65	80	62
22.....	76	57	80	61	83	67	70	62	78	62	80	56	84	64	79	59	80	63	78	60
23.....	78	50	75	58	87	64	78	58	72	57	77	56	83	58	76	55	79	58	70	52
24.....	93	53	80	44	92	64	88	59	87	53	93	53	93	53	90	51	92	56	84	50
25.....	93	66	94	52	93	68	91	64	95	63	96	62	97	60	93	63	94	65	91	60
26.....	93	69	94	62	95	71	93	66	94	65	96	67	98	61	95	65	95	68	93	64
27.....	91	72	96	60	94	70	93	67	93	70	95	65	99	60	94	68	94	68	91	66
28.....	89	66	91	62	96	71	94	68	94	64	95	63	97	63	91	64	93	67	79	62
29.....	81	60	80	50	83	72	87	65	71	57	70	58	96	72	75	61	84	64	68	54
30.....	88	64	76	56	94	73	86	66	82	57	88	54	96	68	85	60	85	61	83	56
31.....	81	63	74	59	89	69	83	64	81	63	84	61	89	64	83	59	86	67	72	62
Means.....	80.6	58.2	79.2	50.6	82.5	62.3	81.5	57.9	79.6	55.6	82.8	54.5	83.8	56.9	81.3	55.1	82.2	58.0	77.6	52.7

<sup>a</sup>, <sup>b</sup>, <sup>c</sup>, <sup>d</sup>, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.<sup>f</sup> Data are from standard instruments not supplied by the U. S. Weather Bureau.<sup>ff</sup> Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.